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TERRESTRIAL ATMOSPHERIC DUST VS MARTIAN ATMOSPHERIC DUST; AS NUTRIENT
SOURCE FOR CYANOBACTERIA THE 1ST OXYGEN FACTORY ON MARS
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Abstract

We found that terrestrial atmospheric dust deposited on the Sonoran Desert, positively influences the development of cyanobacteria of desert biocrusts and Lake Microbialites. Thus, dust aliquots increase significantly the growth of cyanobacteria regardless of their natural habitat. Extrapolating our results, we suggest that the Martian atmospheric dust is a potential source of nutrients for microbes (e.g. cyanobacteria), and can also serve as a dispersive mechanism for microbes themselves, which can colonize and persist in new environments over time, perhaps as they might have developed since the Precambrian on Earth. More generally our results show important relationships between atmospheric dust and microbes having implications for the evolution of the biosphere.